

WHAT IS CLAIMED IS:

1. An aspiration and flushing needle assembly comprising separable flushing and aspiration assemblies,
the flushing assembly comprising a flushing needle connectable to
5 a source of flushing liquid and the aspiration assembly comprising an aspiration needle connectable to an aspiration arrangement,
the flushing and aspiration needle assemblies being connectable for use with the aspiration needle extending coaxially within the flushing needle to the distal end thereof.
- 10 2. An aspiration and flushing needle assembly comprising;
a handle,
an outer needle extending from the handle,
a side port in the handle connectable with a source of flushing liquid,
an aspiration assembly comprising a proximal portion connectable
15 to an aspiration assembly and a distally extending cannula,
the distally extending cannula extending in use through the handle into the outer needle to the distal end thereof,
a connection arrangement on the aspiration cannula to join the aspiration assembly to the handle in use.
- 20 3. An aspiration and flushing needle assembly comprising;
a handle,
an outer needle extending from the handle,
a side port in the handle, the side port being connectable with a source of flushing liquid,
25 a connector portion on the handle, the connector portion being axially aligned with the outer needle, the connector portion having a first connector thereon,

an aspiration cannula assembly having an aspiration cannula extending proximally and distally from a grip to define a proximal portion and a distal portion of the aspiration cannula,

the proximal portion of the aspiration cannula being connectable to
5 an aspiration assembly,

the distal portion of the aspiration cannula adapted to extend through the handle into a lumen of the outer needle to the distal end thereof, and

a second connector on the grip adapted to connect to the first
10 connector on the connector portion to join the aspiration cannula assembly to the handle for use.

4. An aspiration and flushing needle assembly comprising;

a handle with a handle lumen therein,

an outer needle extending from the handle, the outer needle having
15 a needle lumen in fluid communication with the handle lumen,

a side port in the handle, the side port having a side port lumen in fluid communication with the handle lumen and being connectable with a source of flushing liquid,

a connector portion on the handle, the connector portion having a
20 connector lumen in fluid communication with the handle lumen, the connector portion being axially aligned with the outer needle, the connector portion having a first connector thereon,

an aspiration cannula assembly having an aspiration cannula extending proximally and distally from a grip to define a proximal portion and a distal portion of the aspiration cannula,
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the proximal portion of the aspiration cannula being connectable to an aspiration assembly,

the distal portion of the aspiration cannula in use extending into the handle lumen via the connector lumen and to extend into the outer needle

lumen to the distal end thereof, and

a second connector on the grip adapted to connect to the first on the connector portion to join the aspiration cannula assembly to the handle for use.

- 5 5. An aspiration and flushing needle assembly as in Claim 4 wherein the first and second connectors are selected from the group consisting of Luer lock type connectors, push fit connectors, a resilient clip or catch arrangement or any other convenient arrangement.
- 10 6. An aspiration and flushing needle assembly as in Claim 4 wherein the outer needle has a bevelled sharpened tip at its distal end.
7. An aspiration and flushing needle assembly as in Claim 6 wherein the bevelled tip is further sharpened with a secondary bevel to assist with cutting into a follicle.
- 15 8. An aspiration and flushing needle assembly as in Claim 6 wherein when assembled the distal end of the aspiration cannula terminates just within the bevelled sharpened tip of the outer needle.
9. An aspiration and flushing needle assembly as in Claim 8 wherein the distal end terminates between 0.5 to 1.5 mm proximally from the base of the bevel of the sharpened tip.
- 20 10. An aspiration and flushing needle assembly as in Claim 4 wherein a portion at the distal end of outer needle is treated to improve its ultrasound echo characteristics wherein the treatment is selected from the group consisting of indenting, patterning or knurling or coating with a different material and the treatment is spaced back from the bevelled tip or extends

partially along the bevelled tip portion.

11. An aspiration and flushing needle assembly as in Claim 4 further including a tapered extension on the gripper surrounding the cannula which extends into connector portion in use.

5 12. An aspiration and flushing needle assembly as in Claim 11 wherein the tapered extension has an O-ring seal on it to improve sealing of the aspiration cannula assembly into the handle.

10 13. An aspiration and flushing needle assembly as in Claim 4 further comprising alignment detents on the tapered extension which engage with corresponding recesses on the connector portion.

15 14. An aspiration and flushing needle assembly as in Claim 13 wherein the alignment detents on the tapered extension and the recess on the connector portion provided a depth setting on the recess in the connector portion to ensure the distal tip of the aspiration cannula is in a desired position within the distal tip of the outer needle.

15. An aspiration and flushing needle assembly as in Claim 4 wherein the connector portion lumen has internally tapered walls to guide the aspiration cannula into the outer needle lumen.

20 16. An aspiration and flushing needle assembly as in Claim 4 wherein the aspiration and flushing needle assembly is supplied in a sterile peel open package and is intended for one use only.

17. An aspiration and flushing needle assembly as in Claim 4 wherein the aspiration and flushing needle assembly is supplied in a disassembled

state and intended to be assembled by a physician in use.

18. An aspiration and flushing needle assembly comprising;
- a handle with a handle lumen therein,
- an outer needle extending from the handle, the outer needle
- 5 comprising a needle lumen in fluid communication with the handle lumen,
- a bevelled sharpened tip at its distal end and a portion at the distal end of
- outer needle being treated to improve its ultrasound echo characteristics,
- a side port in the handle, the side port having a side port lumen in fluid
- communication with the handle lumen and being connectable with a source
- 10 of flushing liquid,
- a connector portion on the handle, the connector portion having a
- connector lumen in fluid communication with the handle lumen, the
- connector portion being axially aligned with the outer needle, the connector
- portion having a male Luer lock connector thereon,
- 15 an aspiration cannula assembly having an aspiration cannula
- extending proximally and distally from a grip to define a proximal portion
- and a distal portion of the aspiration cannula,
- the proximal portion of the aspiration cannula being connectable to
- an aspiration assembly,
- 20 the distal portion of the aspiration cannula in use extending into the
- handle lumen via the connector lumen and to extend into the outer needle
- lumen to the distal end thereof, and
- a female Luer lock connector on the grip adapted to connect to the
- male Luer lock connector to join the aspiration cannula assembly to the
- 25 handle for use.